Paradise lost: the costs of state failure in the Pacific

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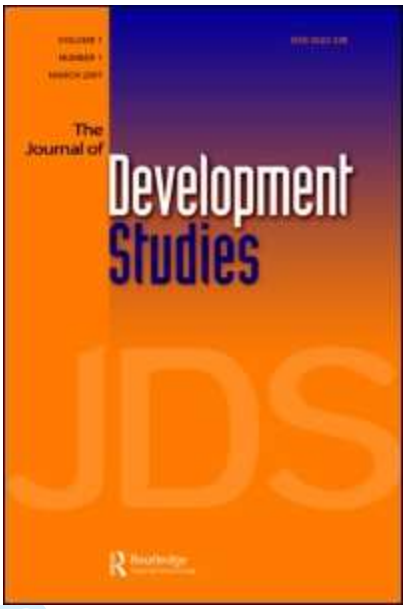

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Paradise Lost: The Costs of State Failure in the Pacific

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Abstract

Globally, state failure is hugely costly, in terms of lost output and the high costs imposed by failing states on their neighbours. This paper examines the cost of failing states in the Pacific. The Pacific region differs from other regions: since its countries are islands the neighbourhood spillovers that normally generate these costs do not apply. The cost of state failure for an island is much lower than for other states, but state failure is more costly to the state itself, as opposed to its neighbours, if the state is an island. This may be due to the greater openness of islands, implying greater flight of financial and human capital. Because neighbours are not directly affected by state failure in the Pacific, any possible interventions should be centred on the humanitarian concern.

1. Introduction

In this paper we estimate the costs of a 'failing state' and apply this concept specifically to the island states in the Pacific Ocean. This study draws closely on the results obtained in our companion paper on the cost of failing states globally (Chauvet, Collier and Hoeffler, 2007). There we estimated the total cost of failing states at around $276bn per year, although of course any such estimate can only be highly approximate.

States can 'fail' in two distinct senses. The most basic role of the state is to provide physical security to its citizens through maintaining a monopoly of organised violence within the society. Where the government fails to do this and rival organisations of violence emerge, the state descends into civil war. However, in the modern world the demands legitimately placed upon the state extend beyond this basic function of security. Governments in all modern societies play some role as regulators of private economic activity, and as suppliers of public goods such as transport infrastructure, health and education. The quality of regulation and public goods is important for the capacity of citizens to earn a living. Increasingly, as globalisation makes economic activity more mobile between countries, the quality of government matters in a relative rather than an absolute sense: governments that are much worse than others are likely to lose economic activities and this will rebound upon their citizens. Hence, a state can fail because its government provides a quality of regulation and public goods which is markedly worse than that provided by other governments. Henceforth, we will refer to the provision of regulation and public goods by the shorthand term 'governance'.

Our paper is concerned with the costs of state failure. Evidently, the costs of failure arising from organised violence are likely to be different from the costs arising from a failure of governance. We measure each separately. In estimating the cost of failure to the countries of the Pacific there are two possible approaches. One, which is the route commonly taken by country specialists, is to focus on a few countries in detail. Our approach is radically different but complementary to this country-focused approach. We start from our global analysis, and investigate whether there are reasons to believe that the Pacific is distinctive from the global pattern. The major advantage of this

approach is that because global analysis provides far more observations, we are able to use more sophisticated and robust techniques for estimating the 'counterfactual': how societies would have evolved had they not 'failed'. The risk in the approach is that it might miss distinctiveness: reasons why global patterns do not apply in the Pacific. Part of our analysis is designed to do just this. Indeed, we find that in one very important respect the Pacific is distinctive, so that the costs of a failing state are considerably lower than implied by the global pattern.

Our approach is complementary to a country-focused approach but not an alternative to it. Comparative global statistical analysis necessarily omits much of importance that can only be understood by serious immersion into area-specific knowledge. Hence, the limitations of our analysis must be understood alongside its strengths.

Failing states generate many different types of costs. If there is large-scale organised violence people are killed, people flee, people get sick as diseases spread, and the economy is damaged. Many of these costs are difficult to quantify and attempts to do so would consequently be contentious. Rather than make inevitably fragile estimates of the costs of incommensurable effects, we confine our analysis to the readily quantified costs of failure, focusing primarily upon the costs to the economy. These estimates are therefore a lower bound to the true costs and should be understood as such rather than as a central estimate of all likely costs. Of course, as economic costs are estimated with error and these unquantifiable costs will be reflected in economic performance, there is not necessarily a serious underestimate.

In our total cost estimate (Chauvet, Collier and Hoeffler, 2007) we distinguish three distinct costs of a failing state: the costs to citizens of such states of poor policy and governance, the costs to these citizens of civil war, and the cost of both these types of failure to neighbours. The largest component of the cost of failing states is the effects on their neighbours: 86 per cent of the total costs of failing states are those inflicted on other countries. Around 12 per cent of the total cost is borne by the citizens of the failing state and the additional risk of future civil war accounts for about 2 per cent of the total cost.

In this paper we focus specifically on the island states of the Pacific. Out of the 11 Pacific Islands on which we have some data, two have been categorised as failing during the period 1977-2004: Papua New Guinea and the Solomon Islands. As discussed below, Fiji may have become failing towards the end of the period. In Section 2 we discuss our definition of state failure and apply it to the Pacific island states. In Section 3 we discuss the basis for external intervention. In Section 4 we estimate the consequences of state failure for the economy of the failing state itself. First we summarise the global pattern and then investigate whether costs are likely to be distinctive in the islands of the Pacific. In Section 5 we turn to the consequences for neighbours. Again, we start from the global pattern and then investigate whether the islands of the Pacific are different. In Section 6 we bring our analysis together, applying it to the costs of state failure among the islands of the Pacific. Section 7 concludes.

2. Defining a failing state: an application to the Pacific

Our definition of state failure focuses on the provision of security and the provision of public goods, i.e. development opportunities. As an initial assessment of the situation in the Pacific we present recent economic data for eleven islands in Table 1. We concentrate our analysis on fully independent states and do not consider territories such as for example Guam and New Caledonia.[1]

---- Table 1 about here ----

In terms of population Papua New Guinea is the largest of the eleven Pacific states; with over 6 million inhabitants it is over six times larger than the next biggest country, East Timor. Although it also has the largest economy in terms of GDP, the per capita income of US$ 990 is well below the average for the region. Other poor countries are the Solomon Islands, Kiribati and the poorest is East Timor (US$ 371). As a comparison the World Bank estimates the average per capita income for the East Asia – Pacific region at $2,320. Growth rates for the eleven countries have in general been poor, with the exception of Samoa and Tonga. In some cases the growth rates have been extremely volatile over the past decade: Fiji's growth rates varied between 8 per cent and -5 per cent. The region is highly dependent on aid; in East Timor and Micronesia the share of overseas development assistance (ODA) makes up about 45

per cent of GNI.[2] While these descriptive data are interesting they do not answer the question of which states have been failing. First, the data are not informative about the security situation and second, countries may be poor due to other reasons than state failure. We thus turn to a more detailed discussion of state failure for the time period which we can examine in a global data set, namely 1977-2004.

Our concepts of state failure, organised violence and bad governance, are continua. The scale of organised violence in a society can range from being a minor irritant, as in youth gangs in a city, to a devastating scourge, as with the Khmer Rouge in Cambodia; similarly, limitations in the quality of governance can range from occasional malfunctions in implementation to gross systematic deficiencies. However, it is often helpful analytically to impose thresholds that thereby create distinct categories of failing states: where the level of non-government organised violence exceeds some level, or where the quality of governance falls short of some level. We have done this globally, and we apply these same concepts to the Pacific.

For organised violence we use the standard definition of a civil war from the well-known database Correlates of War, which adopts a threshold of at least one thousand combat-related deaths during a year. An advantage of using the standard definition is that we are then able to use data sets which have classified countries globally according to it. According to this definition, there have been no episodes of civil war in the Pacific Islands. The war in East Timor, which led to her independence, is coded as a civil war in Indonesia. The Uppsala/Prio Armed Conflict Database (ACD) lists two episodes of minor armed conflict – more than 25 combat-related deaths per year – for Papua New Guinea: 1989 and 1990 and from 1992 until 1996 (see Table 2). The intensity of the conflict was never more than 1,000 in any given year and the conflict is classified as internal.

Recall that by bad governance we mean that the provision of public goods is inadequate relative to the underlying capabilities of the society to pay for them, and that regulatory policies are dysfunctional. Economic policies and governance differ massively between countries. Poor policies and governance are themselves the consequence of other factors such as particular configurations of interest groups. These deeper factors may reduce growth directly as well as via policies and

governance. As a result, an apparent improvement that is divorced from underlying change may have only modest effects on growth. For example, interest groups may use other instruments to achieve their objectives and these may also be detrimental to growth. The poor policies and governance that define failing states should thus probably be regarded as the observable manifestations of a dysfunctional society. They can be thought of as lying on a continuum determined by their likely consequences for growth and poverty reduction. A government fails if it adopts policies and governance that persistently fall below some low threshold and so inflicts slow growth or even absolute economic decline on its citizens.

We adopt the World Bank criterion for Low Income Countries Under Stress (LICUS) as defining such a threshold (World Bank, 2002) and combine it with a concept of persistence of such poor policies and governance. To define failure, the World Bank uses the Country Policy and Institutional Assessment (CPIA) score. The CPIA assesses economic policies and structural reforms since 1977 in 136 developing countries on a scale from 1 to 6.[3] Our sample of fragile states corresponds to the lower range of the CPIA: those countries with a CPIA lower than 2.5. To meet our criterion of persistence a country must fall below 2.5 for a continuous period of at least four years. This is designed to exclude from the category of failing states those that merely suffer a temporary crash. Analogously, we wish to retain in the category of failing states those that having a CPIA lower than 2.5 temporarily or weakly improve policies and governance a little above the threshold. A country exits the category of failing state only if it achieves a decisive improvement, by which we mean sustaining a level of policies and governance clearly above 3.5 for at least two years. Among the Pacific islands, only Papua New Guinea and the Solomon Islands are failing according to our definition. Neither Papua New Guinea nor the Solomon Islands managed to exit the category of failing states during the period under analysis.[4]

---- Table 2 about here ----

How does our classification of state failure in the Pacific compare to other categorisations? A few security and development organisations publish lists of failing states and in Table 2 we compare their assessments. The Political Instability Task Force (PITF) definition of state failure centres on security aspects: a state is failing if

the country suffers a revolutionary or ethnic war, adverse regime changes or genocides and politicides. For the eleven Pacific states PITF lists one ethnic war in Papua New Guinea. For Fiji the PITF lists two episodes of regime change (1987 and 2006) and for the Solomon Islands one (2000-2003).

The definition of state failure used by The Fund for Peace is a broad one; it uses 12 social, economic, political, and military indicators in order to assess a state's vulnerability to violent internal conflict and societal deterioration. For 2007 Somalia received the lowest score and was thus ranked as the country most at risk of state failure. Norway received the highest score and was thus ranked as the country least at risk of state failure. We list the combined score for each of the Pacific countries, and provide their rank among the 177 listed countries. The country judged at the highest risk of state failure is East Timor (rank 25), followed by the Solomon Islands (rank 30).[5]

Based on various different definitions East Timor, Papua New Guinea and the Solomon Islands tend to be classified as failing states. Since East Timor only became fully recognised in 2002 we did not have sufficient data to include the country in our panel analysis, but Papua New Guinea and the Solomon Islands experienced sustained periods of poor governance and thus enter our analysis as failed states. A further two states have experienced poor governance, Fiji and Vanuatu, but the episodes were not of sufficient length to classify them as failed states. Until recently the CPIA scores were not publicly available, but we can show the most recent assessment in Table 3.

---- Table 3 about here ----

The last column lists the average CPIA score for the six Pacific countries for which data were available. As the last two rows indicate, on average their scores are slightly lower (3.14) than the ones of other aid recipients (3.27). These average scores are calculated from 16 criteria. These are grouped in four clusters: (A) economic management; (B) structural policies; (C) policies for social inclusion and equity; and (D) public sector management and institutions. Further details on these clusters are listed in Appendix 1. This breakdown gives us some indication why the World Bank rates governance as poor. Clusters C and D, policies for social inclusion and equity

and public sector management and institutions, tend to receive lower scores. Lower than average scores are highlighted in bold in Table 3. Although clusters C and D are also lower for all aid recipients, the numbers for the Pacific countries suggest that it is in particular the low scores on the criteria for cluster C which reduce the CPIA. Thus, with the exception of Tonga, the Pacific islands score low on social inclusion and equity which is based on an assessment of: gender equality, equity of public resource use, building human resources, social protection and labour policies and institutions for environmental sustainability. Ware (2005) offers an explanation why governance is so poor in this social dimension. She argues that the high population growth in the region outstrips economic growth and employment opportunities. This leads to pressures on land, sea and other natural resources which are currently not mediated by social arrangements, mainly due to government failure.

None of the countries currently has an average score of below 2.5, which is the benchmark for the severe LICUS definition. However, East Timor and the Solomon Islands have very low scores of about 2.7. East Timor is a young state; after a long armed fight against Indonesian rule the population voted in favour of independence in 1999. A number of UN missions were deployed and this post-conflict country is one of the poorest nations. East Timor has suffered from recent riots and in 2006 Australia and other nations sent troops to stop the violence. Thus, the security situation is precarious and the economy suffers from structural weaknesses (Lundahl and Sjöholm, 2009). Population growth is high, there is only a tiny modern private sector, subsistence agriculture dominates the economy, the oil sector generates revenue but no local jobs and the country remains dependent on foreign aid (on average 40 per cent of GNI since 2002). All of these characteristics indicate a risk of state failure.

The Solomon Islands have also experienced organised violent conflict. The country consists of more than 1,000 islands with little sense of unity or nationhood. In 1999 civil unrest on the main island of Guadalcanal broke out. This conflict is often referred to as ‘ethnic tension’ between the Guales and the immigrant Malaitians. However, Dinnen (2002) argues that this conflict is not only due to ethnic differences but that various actors use this disorder to pursue their own political and personal agenda. Despite the Townsville Peace Agreement in 2000 and an Australian led security operation in 2003 the security situation remains fragile. In 2006 rioting in the

capital followed allegations that the prime minister had received bribes from a Chinese businessman. Hundreds of foreigners, mainly Chinese, had to be evacuated.[6] As discussed above the Solomon Islands are also very poor with an average per capita income of about $745 in 2007. The security and development situation remain uncertain and we consider the Solomon Islands as a failing state.

Papua New Guinea has a record of highly fragile institutions and poor economic policy. Its aggregate CPIA has ranged between 2.3 and 3.4 during the eighties and nineties and the country did not manage to turn around within the period under study. Despite the fact that Papua New Guinea is a resource rich country, around one third of the population lives under the $2 per day poverty line. Moreover, Gibson and Olivia (2002) estimate that it would take on average 20 years for poor Papua New Guineans to escape from poverty, and even longer for the rural poor who tend to face slower growth rates. Adding to these structural weaknesses and poor governance, Papua New Guinea has had to face the secessionist tensions of the copper rich island Bougainville (1987-1997). This conflict opposed the government to the Bougainville Revolutionary Army led by Francis Ona, and is estimated to have caused between 10,000 and 15,000 fatalities. A peace agreement led to the establishment of an Autonomous Bougainville Government.

Among the Pacific island states that may be classified as failing, Fiji is probably the most contentious. The country experienced four *coups d'état* (May and October 1987, 2000, 2006). The economic performance of Fiji has suffered from this political instability. As noted by Gounder (1999, 2002) Fiji has experienced slow growth and an exodus of its skilled labour force since the 1987 coups. The coups induced uncertainty, notably relating to land ownership, which had a negative impact on private investment. The *coups d'état* in Fiji reflect the ethnic tensions the Fiji islands have to deal with. With a population mainly composed of native Fijians (Melanesians, 54.3%) and Indo-Fijians (38.1%) Fiji is ethnically polarised. Gounder (2004) clearly highlights the differences in policies for these two ethnic groups and their likely implications in terms of sub-optimal policy choices in many areas. While the CPIA rating of the World Bank for Fiji never fell below 2.5 and averaged 3.1 during 1977-2004, Fiji's economic and political situation gives cause to concern. In April 2009, the Court of Appeal judged the 2006 *coup d'état* against the democratic government of

Laisenia Qarase as illegal. Commodore Bainimarama who took over power in 2006 resigned, but president Iloilo suspended the Constitution and shortly after re-appointed Commodore Bainimarama as Interim Prime Minister.[7]

While East Timor, the Solomon Islands, Papua New Guinea and Fiji have different histories of violence, they have some common characteristics which explain their difficulties. Ware (2005) provides an excellent overview of the security situation in the Pacific. She argues that the region experiences high population growth which puts pressure on the predominant sectors, namely subsistence agriculture and fishing. Many young people migrate to the capital cities but are unable to find jobs there. High youth unemployment rates generate a large number of disaffected young men who can be recruited for civil unrest.

3. What are the limits to sovereignty?

In part a quantification of the costs of failing states is of interest because this is a necessary first step towards a cost-benefit analysis of remedies. However, the costs of a failing state also have a more fundamental significance. Although the term 'failing state' is sometimes used loosely, its distinctive meaning is that the government of such a state should not have the usual untrammelled rights of national sovereignty. The limits to government sovereignty come through three distinct types of argument. The first, exemplified in the new United Nations concept of the *Responsibility to Protect,*[8] is that, beyond some point, if a government harms its own citizens this breaches international norms of acceptable standards and the international community has an obligation to intervene to arrest the harm.

The second is that poverty reduction is not seen as an exclusively national responsibility. The Monterrey Consensus of 2002 formally recognises the responsibilities of international aid donors as well as recipients.[9] The UN norm is that governments of OECD countries should contribute 0.7 per cent of their national income as aid and there is a counterpart responsibility of the governments of recipient countries to manage their affairs in such a way as to be conducive to poverty reduction. However, the threshold of policies and governance necessary for poverty reduction is currently less well defined than that for aid.

The third, exemplified in the international treaties on global public goods such as *Kyoto*, is that a state does not have the right to harm the citizens of *other* countries. Thus, if failing states generate large costs for neighbours, this gives the neighbouring states some rights of intervention to curtail the harm. A failing state would, in this case, be a regional public bad, needing regional collective action to resolve it analogous, for example, to the regional water authorities that override national sovereignty where a river flows through several countries.

The implications for national sovereignty versus international and regional intervention thus rest, to an extent, on who bears the costs of a failing state. If the costs of failure are essentially borne by the citizens of the failing state, the basis for external intervention is a breach in international norms. Where this occurs the authorising environment for intervention is, in some sense, the global community. The actual operation of intervention may be devolved from the international community to some regional actor, but the latter is empowered by the international norms. In contrast, if the costs of failure are substantially borne by neighbours of a failing state, then the neighbours have a direct right of intervention that does not rest on any actual or notional global authorisation. By the principle of *subsidiarity*, regions have the prime responsibility for organising the provision of their own regional public goods, and correspondingly for curtailing their own regional public bads. Hence, a critical issue for the Pacific region is who bears the costs of failure.

4. The Costs of State Failure to the Citizens of Failing States

We now estimate the costs of state failure to the citizens of failing states. Our approach is to quantify the loss to growth resulting from each of the types of state failure, and then to cumulate these losses over the period during which the state is failing. In Chauvet, Collier and Hoeffler (2007) we set out in detail how we estimate these costs. Here we provide a brief overview of our estimation results for the global sample before extending the analysis to the context of the Pacific Islands.

Based on a comprehensive global sample of countries over the period 1974-2001 we estimate a standard growth regression and introduce into it a dummy variable for

failing states. Because we wish to have a single regression that can be used for all the costs to be considered, we confine the present concept of failing states to those which are at peace, and introduce a second dummy for those which are in civil war. We also include dummy variables for neighbourhood spillovers. These other dummy variables will be discussed in subsequent sections. Our core regression is OLS. However, to check the robustness of the results we repeat the regression using GMM.[10] The results of both regressions are reported in Table 4. The GMM results coincide with those of the OLS: being a failing state at peace significantly reduces the growth rate by 2.6 per cent relative to being at peace with adequate policies and governance. The 90 per cent confidence interval around this estimate, which we can use to provide confidence intervals around our estimates of cost, is also shown in the Table. The last column of Table 4 also shows the results when using the World Development Indicators (WDI) instead of the Penn World Tables data. This is because more islands are included in the sample when using the WDI dataset, which is thus used in the remainder of the paper.

---- Table 4 about here ----

Having arrived at the annual cost in terms of reduced growth, the remaining dimension of cost is the likely persistence of these losses. Our criteria of persistence of the definition of state failure have excluded both temporary crashes that swiftly rebound and temporary improvements that quickly collapse, but they do not necessarily imply that the phase of inadequate policies and governance is prolonged. Chauvet and Collier (2008) use a logit regression to estimate the probability that a failing state will achieve a decisive exit from the condition. A few characteristics make exit significantly less likely: a small population and a low incidence of secondary education. In effect, turnaround is made harder if there are in absolute terms few well-educated people in the society. Compared with other developing countries the typical failing state indeed has both of the characteristics that predict persistence. The typical failing state has a population of only 15 million as compared with 42 million for elsewhere, and a far lower proportion of its population have completed secondary education: 3 per cent against 12 per cent for other developing countries. At the mean of failing state characteristics the predicted annual probability of exit is a mere 1.7 per cent. In turn, this probability can be converted into the mathematical expectation of the duration of being a failing state: in effect, how long

the typical failing state will remain in the condition. The expectation is 59 years. Hence, the typical low-income failing state will indeed experience a prolonged period in which policies and governance are inadequate and so a high incidence of poverty is likely to be prolonged.

We then combine the annual loss of growth with our estimate of the probability of a decisive turnaround from the condition, namely 1.7 per cent per year. For example, if a failing state is very fortunate, in the first year it will lose 2.6 per cent of GDP relative to the counterfactual of adequate policies whereupon it will achieve a decisive turnaround. The ultimate costs of having been a failing state then depend upon what is assumed about post-turnaround recovery. At one extreme growth post-turnaround is merely the same as if the country had always had adequate policies. In this case the loss is perpetual: every year in the future the country is 2.6 per cent worse off than if it had not had the phase of inadequate policies and governance. We adopt the more hopeful, and probably more reasonable, assumption that during the recovery phase growth is unusually rapid: the economy recovers to where it would have been without the failing state phase, and the recovery takes as many years as that phase has lasted. The cost of having been a failing state is then the loss of GDP in each year until the economy attains the level it would have reached had it not been a failing state, discounted to the present. We adopt a discount rate of 5 per cent. We allow for the possibility of turnaround in each year, weighted by the probability that a turnaround will occur in that year, and sum across all of these possible paths of development. This generates the mathematical expectation of the discounted present value of the cost of being a failing state, viewed from the first year in which the country enters the condition. Chauvet, Collier and Hoeffler (2007) provide the detailed calculation of the cost. Our central estimate of the costs of the typical failing state at peace is about five times their average GDP, with the 90 per cent confidence interval from the growth regression giving a range of 4.2 to 5.8 times their GDP.

We now investigate whether the Pacific conforms to this global pattern. There are two ways in which a region might be distinctive from the global pattern, which we might think of as cultural and structural. A cultural account of distinctiveness would be that because of certain culturally-specific features of the Pacific the consequences of civil war or bad governance would be different from elsewhere. A structural account of

distinctiveness would be that because the economies of the Pacific had important structural differences from the global norm the consequences would be different. In principle it is possible to test for each of these statistically. Unfortunately, in the case of the Pacific it is not possible to check for the cultural account of difference. This is because there are too few failing states in the region to rely upon the statistical approach. It is therefore better for regional specialists to apply their judgment to this issue.

It is far easier to incorporate structural as opposed to cultural distinctiveness in our statistical analysis. This is because, although all Pacific countries may have a particular structural characteristic that is less common elsewhere, they will not be the only countries that have this characteristic. The structural question is not whether Pacific islands are distinctive, but rather whether countries with this characteristic are distinctive, in which case the Pacific will be distinctive from the global average.

One structural characteristic of Pacific countries that may have important consequences for the costs of being a failing state is that Pacific countries are islands. The cost of failure might be higher than average in small islands because they are atypically highly exposed to the global economy. In effect, far from being atypically isolated, small islands might be atypically integrated into global or regional markets. In particular, both capital and labour are likely to be highly mobile internationally in small islands (Ware, 2005). Such factor mobility would tend to increase the cost of bad governance because of the amplified exit that it entailed. Whether this is correct is entirely an empirical matter. To test it we create a dummy variable for countries that are islands and investigate whether its interaction with our dummy variable of failing states is significant in the growth regression. This will provide information as to whether failing island states suffer a different cost than other failing states. To avoid confusion with any direct effect of being an island on growth performance we also include the island dummy directly in the regression. We report this in Table 5, column 1. The interaction term is significant and negative: island failing states suffer substantially larger losses from state failure than do other countries, around an additional 2.1 per cent reduction in the growth rate.

---- Table 5 about here ----

Before accepting this result we need to consider alternative explanations. One possibility is that it is due to a compositional effect: islands happen to suffer disproportionately from the more costly form of failure, namely organised violence. In fact, the opposite is the case, so this is not the explanation. There seems some basis for accepting that state failure in islands inflicts considerably larger costs on citizens than is the case elsewhere in the world. At the least, it seems reasonable to conclude that the global cost is a lower bound to the cost for islands.

If islands indeed suffer larger growth losses from bad governance then the present value of the costs is larger than the global estimate of five times annual GDP. The annual loss of growth of a failing *island* state is 3.9 per cent - adding the 2.1 per cent that is specific to island failing states to the 1.8 per cent of growth that a typical failing state at peace loses. Cumulating over years and discounting, this leads to a loss of 6.7 times the initial GDP. The 90 per cent confidence interval from the growth regression gives a range of 4.2 to 8.4 times the initial GDP.

5. The Costs of State Failure to Neighbours

We now turn to the second cost, namely that inflicted on neighbours. Neighbours suffer a variety of costs from failing states, but here we concentrate upon the economic losses. Globally, growth spills over onto neighbours. We now again investigate whether the Pacific conforms to this global pattern. As previously, the possible basis for exceptionalism is either cultural or structural. Again we cannot test for the cultural explanation, but we can test for the structural. We therefore turn to the structurally specific aspects of the Pacific. In what respects, if any, are the countries of the Pacific region likely to be structurally distinctive in a way that affects the spillover costs to neighbours? Again, the same characteristic stands out: the countries of the Pacific are islands, whereas most countries elsewhere are part of large landmasses. However, the reason why being an island might generate distinctive spillover effects is quite different from the reason why it might generate distinctive costs to citizens. The key issue is whether islands have neighbours, or more precisely whether proximate islands experience economic spillovers.

Spillovers might arise through several different routes. For example, compare spillovers arising from trade between neighbours and spillovers arising from the reputation of the neighbourhood. Trade between neighbours is likely to be less important for neighbours if they are islands than if they are spatially contiguous. Neighbouring islands are too similar to generate much trade with each other, and trade is limited by transport costs (most of the costs of sea transport are end-costs of loading and unloading). Hence, being proximate to another country by sea connection is of very little advantage in trade. By contrast, the costs of land transport are both much larger and more closely related to distance, hence proximity matters. If, however, the key spillover is through the reputation of the neighbourhood with investors, then physical contiguity may be unimportant. Pacific islands might be viewed as a group and investor risks and opportunities to an extent assessed collectively, so that reputation becomes a regional public good.

To test for whether island neighbourhoods are distinctive, we first had to create the empirical concept of an island neighbourhood. We did this by recoding islands from having no neighbours, which is how they are conventionally treated, to being part of neighbourhoods within which each island was deemed to be a neighbour of every other island in the same region. Thus, in the case of the West Indies each island was treated as being in the 'West Indies island neighbourhood', and contiguous to every other member of this neighbourhood. We undertook such a coding globally, for each likely group of islands, including of course the Pacific islands. The resulting coding produced five groups of 'island neighbourhoods' (reported in Appendix 2). The total of 664 observations (in Table 5) comprise mostly islands in the Caribbean, Pacific and East Africa. The island groups for South Europe and Asia are very small and of little economic significance (they may be geographically proximate as islands but have few if any economic ties). We therefore re-estimated Table 5 without South Europe and Asian islands (13 observations dropped); the results presented in Appendix Table 3 are very similar to those of Table 5.

Having constructed these island neighbourhoods we then tested to see whether being the neighbour of other islands had similar effects to being a neighbour in the more conventionally defined sense of a contiguous land border. For this, we first pooled all the island neighbourhoods into the global data, thus reclassifying islands as having

neighbours instead of being isolated. Because the joint significance test of the coefficients of neighbours at war and at peace suggests that the two coefficients are not significantly different (last row of Table 5), we aggregate neighbours at peace and at war into one variable: in column 2 the neighbour variables excludes islands while in column 3 it includes islands. Then we introduce a dummy for being an island and interact it with the dummy for being the neighbour of a failing state (Table 5, column 4). As previously, we controlled for the direct effects of being an island and a failing island state. Indeed, these effects were investigated as part of the same regression as that previously reported.

The interaction of the island dummy with the dummy for being the neighbour of a failing state is significant and positive. Indeed, the coefficient is virtually identical, though with opposite sign, to that on being the neighbour of a failing state, a category which now includes the islands. These results suggest that islands do not have neighbours in the sense of regional spillover costs to growth from being a failing state.[11]

An immediate implication is that the costs of a failing state in an island neighbourhood are essentially due to those costs that are borne by citizens of the failing state itself. Going back to our analysis of sovereignty, this implies that the basis for international action in failing island states is closer to the *responsibility to protect* than to the right to curtail regional public bads. In consequence, the rights of regional actors seem likely to flow more from devolved authority from global concerns about the breach of basic norms rather than directly from the right to protect one's own citizens from spillovers.

6. The costs of state failure in the Pacific

The cost of state failure in the Pacific can now be built up from the incidence of state failure in the region and the cost per failing country. We take these in turn.

The incidence of state failure in the Pacific

State failure has two manifestations: bad governance, and the collapse into internal violence. On our criteria discussed above, the incidence of bad governance in the Pacific islands is 19 per cent. This is identical to the global incidence of bad governance among low-income countries. This at least cautions against region-specific pessimism. Further, among the eleven smaller Pacific Islands there has been no situation that meets the standard international criteria for a civil war. While this may imply that the Pacific region lives up to its name, unfortunately East Timor has had a long history of sustained violence with very high mortality, so the neighbourhood has clearly not been immune from violent conflict. The low incidence of civil war may be due to something especially favourable about the neighbourhood, or it may be structural: globally, countries with the structural characteristics of the Pacific islands may not experience civil war. We included a dummy variable for islands in the Collier, Hoeffler and Rohner (2009) core regression and found it to be insignificant: island states do not seem either more or less conflict prone than other countries.

Although the low incidence of civil war in the neighbourhood indeed appears most likely to be structural, it is not because they are islands but because they are small. Small societies seldom generate the scale of violence that exceeds the threshold definition of civil war even though they may suffer more modest levels of violence. The atypically high prevalence of resort to violence in East Timor is also consistent with an important feature of the global pattern: the conflict trap. Once a society has experienced violent conflict it is considerably more prone to further bouts of violence, partly due to the legacy of guns and organisations, and perhaps also due to the examples set by past experience.

The total cost of state failure in the Pacific

Finally, we turn to the calculation of the cost of failure in pacific islands. Recall that the cost of failure in fragile island states is essentially due to the costs that are borne by citizens of the failing island itself, since the loss of growth due to neighbours is nil.

On average, the loss of growth due to failure in islands implies a loss of 6.7 times the initial GDP.

In our sample, two pacific islands enter into the fragile state category: Papua New Guinea and the Solomon Islands. With a population of 4.3 million people in 1998-2004, Papua New Guinea is more than 10 times bigger than the Solomon Islands (378,000). So is its average GDP, as shown in Table 6.[12] Thus the total cost of failure in Papua New Guinea amounts to $33.5 bn ($1.7 bn per year) while that of Solomon Islands amounts to $2.2 bn ($0.1 bn per year).

The value of turning round these two fragile states would thus be of the order of $36 bn, expressed as a present value and $1.8 bn per year. It is worth noting that in 2007 Papua New Guinea and the Solomon Islands together received $567 million of aid, which represents around one third of the annual cost of their failure.

---- Table 6 about here ----

7. Conclusion

Globally, state failure is hugely costly and so warrants serious attention. The policy instruments appropriate for addressing state failure are beyond the scope of this paper, but are likely to include security, governance and trade policies as well as aid. We have attempted to apply our global framework and methodology to the specific context of the Pacific. This approach has both strengths and weaknesses which it is important to recognise. Our approach necessarily lacks the richness of detail provided by the case-study method. It is best seen as a supplement and complement to such an approach rather than a rival. However, we have attempted to discover in what ways the Pacific is distinctive from the global pattern as well as the ways in which it conforms to it.

Globally, failing states inflict very large costs on their neighbours and this both justifies and requires regional intervention in decision processes that would normally be the sovereign domain of nation states. One respect in which the Pacific is distinctive is that, because its countries are islands, the neighbourhood spillovers that

normally generate these costs do not apply. As far as we can discern, islands do not have neighbours in this economic sense. Hence, the basis for regional concern is somewhat reduced, and indeed shifted from the self-interest of other states to their humanitarian concern with the wellbeing of the directly affected populations. The second respect in which the Pacific is distinctive reinforces this latter conclusion. Although neighbours are not affected by state failure, the failing states themselves suffer considerably more in terms of income losses if they are islands. We have speculated that this may be because of the greater openness of islands, implying greater flight of capital and skilled labour. Hence, the humanitarian case is particularly strong.

Finally, we have attempted to put a cost on state failure in the Pacific. This is evidently a heroic undertaking and the results should be treated with due caution. Nevertheless, our estimate of a present value of around $36bn is so large that the implication is clear: state failure in the Pacific should be a major policy concern. This estimate of lost output omits costs that are likely to be important both to the societies themselves, and globally. Most notably, within societies we have omitted the costs of heightened morbidity and mortality, while globally we have omitted costs arising from the heightened risk that the failing state will become a haven for pandemics, international crime and terrorism.

Table 1: Selected Economic Indicators for Eleven Pacific States (2007)

Country	total population	GDP per capita (US$)	annual growth (per capita GDP)	ODA per capita (US$)	ODA/GNI (%)
East Timor	1,065,900	371	-1.87	203	46.5
Fiji	838,200	4,095	1.29	56	2.0
Kiribati	101,900	851	1.36	214	19.4
Marshall Islands	66,500	2,448	-0.12	1,002	37.6
Micronesia	111,000	2,313	0.28	980	44.3
Palau	20,200	8,148	-0.16	1,240	26.8
Papua New Guinea	6,324,100	990	-1.17	46	7.2
Samoa	186,800	2,579	2.97	198	12.1
Solomon Islands	495,400	745	-1.81	230	34.7
Tonga	100,600	2,298	1.88	240	13.5
Vanuatu	225,900	2,001	-0.21	196	13.9

Notes: Average annual growth rate measured over the period 1998-2007, all other figures are for 2007. GDP and ODA per capita are measured in current US$. Sources: WDI, 2009 and OECD-DAC, 2009.

Table 2: Classification of State Failure in the Pacific

	CPIA average 1977-2004	Political Instability Task Force, 2007	Failed States Index, 2007	BMZ, 2007	Uppsala/Prio Armed Conflict Data Set
East Timor	n.a.	n.a.	93.4 (25)	Failed	n.a.
Fiji	3.1	Regime changes in 1987 and 2006	76.6 (87)		
Kiribati	3.2	n.a.	n.a.		
Marshall Islands	3.0	n.a.	n.a.		
Micronesia	3.0	n.a.	74.0 (97)		
Palau	n.a.	n.a.	n.a.		
Papua New Guinea	2.8	Ethnic war 1989-1997	84.6 (52)	Failed	Internal minor armed conflict, 1998-1990 and 1992-1996
Samoa	3.0	n.a.	72.4 (101)		
Solomon Islands	2.6	Regime change 2000-2003	92.4 (30)	Failed	
Tonga	3.2	n.a.	n.a.		
Vanuatu	2.9	n.a.	n.a.	Failed	

Sources and Explanations CPIA scores were provided by the World Bank (World Bank, 2008).
Political Instability Task Force (PITF) data were obtained from http://globalpolicy.gmu.edu/pitf/ PITF defines ethnic wars as episodes of violent conflict between governments and ethnic or other communal minorities. There are the two minimum thresholds for including an ethnic war event in the state failure problem set: a *mobilisation threshold*, wherein each party must mobilise 1,000 or more people (armed agents, demonstrators, troops), and a *conflict intensity threshold*, whereby there must be at least 1,000 direct conflict-related deaths over the full course of the armed conflict and at least one year when the annual conflict-related death toll exceeds 100 fatalities.
Adverse regime changes are defined as: major, adverse shifts in patterns of governance, including major and abrupt shifts away from more open, electoral systems to more closed, authoritarian systems; revolutionary changes in political elites and the mode of governance; contested dissolution of federated states or secession of a substantial area of a state by extrajudicial means; and/or near-total collapse of central state authority and the ability to govern. The main criterion used to identify adverse regime changes is the record of a six or more point drop in the value of a state's POLITY index score over a period of three years or less. Most of the cases of adverse regime changes are identified in this way. Such changes may be accomplished by coup, fiat, or popular referendum. The POLITY index is a measure of the institutionalised regime authority characteristics of the central state; the index scale ranges from minus 10 (-10, fully institutionalised autocracy) to plus10 (+10, fully institutionalised democracy).
The Failed States Index was downloaded from http://www.foreignpolicy.com/story/cms.php?story_id=4350. Figures in brackets provide the ranking.
The Uppsala/Prio Armed Conflict Data Set is available from http://www.prio.no/Data/. We used v4.-2008.

Table 3: Recent CPIA Scores

	A	B	C	D	CPIA
East Timor	3.00	**2.61**	**2.67**	**2.63**	2.73
Kiribati	3.17	**3.00**	**2.87**	3.17	3.05
Papua New Guinea	4.00	3.44	**2.60**	**2.90**	3.24
Samoa	3.94	4.00	**3.87**	**3.90**	3.93
Solomon Islands	3.00	2.89	**2.60**	**2.53**	2.76
Tonga	**2.83**	3.11	3.23	**2.97**	3.04
Vanuatu	3.67	**3.22**	**2.87**	**3.17**	3.23
Average (6 Pacific countries)	3.37	3.18	**2.96**	**3.04**	3.14
Average (all countries)	3.48	3.34	**3.23**	**3.03**	3.27

Note: Averages for 2006-2008. Source: www.worldbank.org/governance.

Table 4: Growth effect of Failing States, 1974-2001

		OLS		SYS-GMM	OLS
		PWT		PWT	WDI
	(1)	90% Confidence interval		(2)	(3)
Income per capita, t-4	-0.008	-0.012	-0.005	-0.005	-0.008
	(3.50)***			(1.08)	(4.61)***
Dummy non-Failing States countries at war	-0.013	-0.021	-0.006	-0.008	-0.013
	(3.02)***			(0.83)	(2.14)**
Dummy Failing States at war	-0.042	-0.056	-0.028	-0.033	-0.051
	(4.87)***			(2.56)**	(4.06)***
Dummy Failing States at peace	-0.026	-0.032	-0.020	-0.024	-0.022
	(6.96)***			(3.64)***	(6.22)***
Proportion of neighbours being FS at war	-0.018	-0.032	-0.005	-0.062	-0.016
	(2.20)**			(3.09)***	(1.88)*
Proportion of neighbours being FS at peace	-0.018	-0.026	-0.010	-0.021	-0.021
	(3.70)***			(1.94)*	(4.61)***
Constant	0.105	0.070	0.140	0.077	0.090
	(4.89)***			(2.22)**	(6.26)***
Observations	600			600	664
R-squared	0.17				0.14
Number of countries	105			105	118
Number of FS	45				49
Number of islands	19				25
Number of FS Islands	5				6
Number of Pacific Islands	2				6
Number of FS Pacific Islands	1				2
Hansen test of over-identification (*p*-value)				0.79	
Number of instruments				116	
AR(1) (p-value)				0.001	
AR(2) (p-value)				0.507	

Regression (1) and (3) are estimated with OLS. Regression (2) is estimated with System-GMM (Blundell and Bond, 1998). All right-hand side variables are instrumented. Robust t statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Dependent variable: Growth rate of real income per capita, Penn World Tables 6.1 in regression (1) and (2) and WDI in regression (3). All regressions include time dummies.

Table 5: Growth effect of islands

OLS estimations	(1)	(2)	(3)	(4)
Income per capita, t-4	-0.009	-0.009	-0.009	-0.010
	(5.16)***	(5.17)***	(5.08)***	(5.14)***
Dummy non-Failing States countries at war	-0.011	-0.011	-0.011	-0.011
	(1.83)*	(1.87)*	(1.89)*	(1.89)*
Dummy Failing States at war [(1)]	-0.049	-0.049	-0.049	-0.048
	(3.89)***	(3.86)***	(3.85)***	(3.82)***
Dummy Failing States at peace [(1)]	-0.018	-0.019	-0.018	-0.018
	(4.98)***	(5.06)***	(4.95)***	(4.90)***
Proportion of neighbours being FS at war (excl. islands) [(2)]	-0.015			
	(1.76)*			
Proportion of neighbours being FS at peace (excl. islands) [(2)]	-0.023			
	(4.92)***			
Dummy Island	0.011	0.011	0.012	0.008
	(2.78)***	(2.74)***	(3.15)***	(1.84)*
Dummy FS Island	-0.021	-0.021	-0.021	-0.021
	(2.70)***	(2.67)***	(2.70)***	(2.72)***
Proportion of neighbours being FS (excl. islands)		-0.021		
		(4.68)***		
Proportion of neighbours being FS (incl. islands)			-0.021	-0.023
			(4.35)***	(4.49)***
Proportion of neighbours being FS islands				0.023
				(1.65)*
Constant	0.096	0.096	0.095	0.097
	(6.65)***	(6.67)***	(6.57)***	(6.61)***
Observations	664	664	664	664
R-squared	0.15	0.15	0.15	0.15
(1) probability that the two coefficients are equal	0.01			
(2) probability that the two coefficients are equal	0.35			

All regressions include time dummies. Robust t statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Dependent variable: Growth rate of real income per capita, WDI (2004).

Table 6: The cost of failure in pacific islands

	Population (in mn) 1998-2004	GDP (in bn $) 1998-2004	Proportion of income that is lost due to failure	Cost of failure (in bn $)
Papua New Guinea	4.3	5	6.7 [4.2, 8.4]	33.5 [21, 42]
Solomon Islands	0.38	0.32	6.7 [4.2, 8.4]	2.2 [1.3, 2.7]
Total Cost				35.7 [22.3, 44.7]

Notes

[1] The only independent country for which data was not available from the World Bank was Nauru.
[2] For a discussion of foreign aid to the region see Feeny (2007).
[3] The CPIA is one of the possible indicators available to measure the quality of policy and institutions, and is therefore likely to be subject to inaccuracy. It has the advantage of being available for a long period of time and many developing countries. The ICRG is an alternative indicator, which is highly correlated with the CPIA and available for fewer countries/periods.
[4] It is worth noting that the CPIA is not available for East Timor before the mid-2000's.
[5] Development agencies typically do not publish lists of failing states, one exception being the German Ministry of Development (BMZ). They list four of the eleven Pacific states as failed: East Timor, Papua New Guinea, the Solomon Islands and Vanuatu.
[6] http://news.bbc.co.uk/1/hi/world/asia-pacific/4930994.stm accessed on 13 July 2009.
[7] http://news.bbc.co.uk/1/hi/world/asia-pacific/country_profiles/1300477.stm accessed on 13 July 2009.
[8] The full text of UN Resolution A/RES/60/1 can be found at: http://daccessdds.un.org/doc/UNDOC/GEN/N05/487/60/PDF/N0548760.pdf?OpenElement. The responsibility to protect populations from genocide, war crimes, ethnic cleansing and crimes against humanity is set out in paragraphs 138 and 139.
[9] Full text at http://www.un.org/esa/ffd/monterrey/MonterreyConsensus.pdf.
[10] Chauvet, Collier and Hoeffler (2007) also provide some robustness checks on the specification. Including education, investment and democracy in regression (1) of Table 4 does not alter the results.
[11] We performed specification tests on regression (4) of Table 5. We included alternative control variables for education, investment and democracy. These checks suggest that our results are robust to the introduction of these control variables. (Available upon request).
[12] The difference in numbers of Tables 1 and 6 are due to different time periods (respectively 2007 and 1998-2004).

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Appendix 1: Country Policy and Institutional Assessment (CPIA) Clusters

A. Economic Management	1	Macroeconomic Management
	2	Fiscal Policy
	3	Debt Policy
B. Structural Policies	4	Trade
	5	Financial Sector
	6	Business Regulatory Environ.
C. Policies for Social Inclusion/Equity	7	Gender Equality
	8	Equity of Public Resource Use
	9	Building Human Resources
	10	Social Protection & Labour
	11	Pol. & Institutions for Environ. Sustainability
D. Public Sector Management and Institutions	12	Property Rights & Rule-based Govern.
	13	Quality of Budget. & Financial Management
	14	Efficiency of Revenue Mobilisation
	15	Quality of Public Admin.
	16	Transparency, Accountability & Corruption in Pub. Sector

Appendix 2: Island Classification

Pacific:
East Timor, Fiji, Kiribati, Marshall Islands, Fed. States of Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu.

Caribbean:
Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago.

East Africa:
Comoros, Madagascar, Mauritius and Seychelles.

South Europe:
Cyprus, Malta.

Asia:
Maldives, Singapore and Sri Lanka.

Appendix 3: Robustness checks on island classification

Estimations w/o South European and Asian islands.

OLS estimations	(1)	(2)	(3)	(4)
Income p.c. t-4	-0.00990***	-0.00995***	-0.00966***	-0.0102***
	5.28	5.29	5.14	5.33
Dummy non-Failing States countries at war	-0.0110*	-0.0113*	-0.0112*	-0.0116*
	1.73	1.78	1.77	1.83
Dummy Failing States at war	-0.0543***	-0.0537***	-0.0535***	-0.0534***
	4.14	4.10	4.08	4.07
Dummy Faiming States at peace	-0.0176***	-0.0180***	-0.0177***	-0.0174***
	4.82	4.92	4.82	4.75
Proportion of neighbours being FS at war (excl. islands)	-0.013			
	1.55			
Proportion of neighbours being FS at peace (excl. islands)	-0.0230***			
	4.95			
Dummy Island	0.00926**	0.00891**	0.0108***	0.00288
	2.25	2.19	2.61	0.57
Dummy FS Island	-0.0275***	-0.0263***	-0.0260***	-0.0277***
	3.63	3.53	3.52	3.67
Proportion of neighbours being FS (excl. islands)		-0.0207***		
		4.60		
Proportion of neighbours being FS (incl. islands)			-0.0200***	-0.0233***
			4.14	4.59
Proportion of neighbours being FS islands				0.0438***
				3.55
Constant	0.105***	0.106***	0.103***	0.108***
	7.43	7.41	7.25	7.45
Observations	651	651	651	651
R-squared	0.166	0.165	0.161	0.167